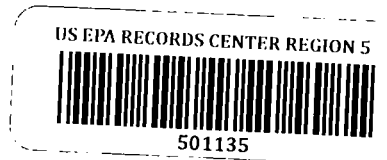


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January 27, 2010

Mr. James J. Hahnenberg
Remedial Project Manager
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard, SR-6J
Chicago, IL 60604-3590

Re: Groundwater Issues
North Bronson Industrial Area Site Operable Unit 1, Bronson, Michigan

Dear Mr. Hahnenberg:

This correspondence, prepared on behalf of the North Bronson Industrial Area (NBIA) Operable Unit 1 Potentially Responsible Parties Group (the Group), provides follow-up to the conference call discussion of December 18, 2009 among representatives of the U.S. Environmental Protection Agency (USEPA), the Michigan Department of Natural Resources & Environment (formerly the Michigan Department of Environmental Quality [MDEQ]), and the Group regarding certain groundwater issues related to Operable Unit 1 at the NBIA Site. In that discussion, we reviewed the Group's March 17, 2009 proposal for completing the Groundwater Delineation Study associated with the Western Lagoon Area and MDEQ's memorandum of March 25, 2009 regarding that plan. In the December 18, 2009 call, we also discussed the MDEQ comments provided by letter dated August 11, 2009, and the Group's response letter of September 14, 2009, regarding the proposed City of Bronson Groundwater Ordinance. We also talked briefly about environmental restrictive covenants for potentially affected properties in Bronson Township.

This letter, which also follows our telephone discussion of January 8, 2010, addresses the open issues from the December 18, 2009 call regarding the Groundwater Delineation Study associated with the Western Lagoon Area and the environmental restrictive covenants at potentially affected properties in Bronson Township. Issues related to the City of Bronson Groundwater Ordinance are being addressed separately.

GROUNDWATER DELINEATION STUDY

Notwithstanding the Group's concerns that addressing multi-sourced regional groundwater impacts is not a component of the interim action defined under Operable Unit 1, in an effort to make progress on the Groundwater Delineation Study, the NBIA Group proposes a scope

of additional investigation focused on confirming, with reasonable certainty, that constituents associated with Western Lagoon Area are not affecting current groundwater receptors. The objective of this additional investigation is to complete the delineation of the limits of impacted groundwater north and west of the Western Lagoon Area, *i.e.*, between the Western Lagoons and the residents along Burr Oak Road who employ private wells.

To achieve this objective, two Geoprobe® soil borings (GP-20 and GP-21) will be installed north of County Drain #30 (CD#30), and three Geoprobe® borings will be installed west of the Western Lagoon Area between Burr Oak Road and CD#30 (GP-22, GP-23, and GP-24). Table 1 summarizes these borings, and Figure 1 shows the proposed soil boring locations. All five of these borings are located between the Western Lagoon Area and the nearest potential ground water receptors at residences along Burr Oak Road, and all five address groundwater flow directions and potential groundwater transport pathways for constituents originating in the Western Lagoon Area. The Western Lagoon Area is not the only potential source of volatile organic compounds (VOCs) or other constituents in groundwater in these areas, given the potential for impact from the multi-sourced regional groundwater plume and other potential sources in the area unrelated to the Western Lagoons or NBIA Operable Unit 1.

Vertical aquifer profiling (VAP) will be conducted in each of these five borings to confirm that horizons that comprise potential preferential pathways of VOC transport within the upper aquifer are fully evaluated. VAP methods are discussed in Section 3.1.1 of the USEPA-approved *Groundwater Delineation Work Plan* (O'Brien & Gere, Inc, February 2008). Assuming that VAP results show no VOC impacts, four of these five borings will then be overdrilled, and ground water monitoring wells (designated MW-41, MW-46, MW-47, and MW-48) will be installed. The wells will be screened just above the top of the till unit, which is estimated to be approximately 30 to 35 feet below the ground surface. If VOC impacts are detected at any boring, an additional boring would be advanced at a location further to the west to delineate the western limits of ground water impacts. Wells will only be installed in boring locations determined to be "clean" from VAP testing.

No groundwater well is proposed at boring location GP-20. This boring is in an active agricultural field, and past site experience has proven that a permanent well at this location would not be sustainable.

Monitoring wells will be developed and surveyed as described in the *Groundwater Delineation Work Plan*. A round of water levels and groundwater samples will then be collected from the 4 newly installed wells and from the 10 wells previously installed during the first phase of the Groundwater Delineation Study (*i.e.*, MW-6D, MW-33I, MW-39, MW-40, MW-42, MW-43, MW-44S, MW-44D, MW-45S, and MW-45D). Collected samples will be analyzed for VOCs, metals, and cyanide, per the *Groundwater Delineation Work Plan*. A report of the additional investigations will be prepared to update the *Preliminary Ground Water Delineation Data Report* (O'Brien & Gere, January 2009).

ENVIRONMENTAL RESTRICTIVE COVENANTS

The Group will initiate efforts to attain environmental restrictive covenants for properties located in Bronson Township that are potentially affected by impacted groundwater. These properties are outside the Bronson city limits and will not be addressed by the proposed City of Bronson groundwater ordinance. Restrictive covenants related to limiting groundwater use will be necessary for these properties. Table 2 lists the properties and owners to be approached with respect to restrictive covenants designed to accomplish the following:

- Prohibit use of private wells finished in the upper aquifer (no wells completed in the upper aquifer are known to exist at any of these properties);
- Prohibit future installation of private wells finished in the upper aquifer; and
- Prohibit future installation of wells into the lower aquifer in a manner that could cause cross-contamination of the upper and lower zones.

In accordance with Paragraph 27C of the Consent Decree, these Declarations of Restrictive Covenants will be substantially in the form provided by USEPA as Appendices E and F to the Consent Decree and modified as necessary to make the documents recordable under Michigan law. The Group will obtain USEPA approval of the contents of the restrictive covenants before seeking agreements with the landowner to record the restrictive covenants. Restrictions would remain in place and run with the land until USEPA determines that constituents in shallow groundwater no longer pose a concern at concentrations above applicable drinking water standards.

* * * *

We trust that this correspondence is responsive to the issues raised in our December 18, 2009 conference call regarding the Groundwater Delineation Study associated with the Western Lagoon Area and the environmental restrictive covenants at potentially affected properties in Bronson Township. The Group is prepared to initiate the field work for the additional Groundwater Delineation Study investigation upon receipt of USEPA's authorization to proceed and suitable weather and ground surface conditions.

If you have questions regarding this submittal or related project matters, please do not hesitate to contact me.

Respectfully submitted,



Leo M. Brausch
Project Coordinator

LMB:

Attachments:

- Table 1: Summary of Proposed Soil Borings and Groundwater Monitoring Wells, Completion of Groundwater Delineation Study, Western Lagoon Area
- Table 2: Properties in Bronson Township Potentially Affected by Impacted Groundwater Related to NBIA Operable Unit 1
- Figure 1: Proposed VAP and Well Locations
- Figure 2: Potentially Affect Township Properties

cc: Deborah D. Larsen, MDNRE
Charles W. Graff, MDNRE
Stephen D. Cunningham, MDNRE

cc (via email):

NBIA Operable Unit 1 PRP Group Legal Committee
NBIA Operable Unit 1 PRP Group Technical Committee
Clifford S. Yantz, O'Brien & Gere, Inc.

TABLES

Table 1
Summary of Proposed Soil Borings and
Groundwater Monitoring Wells
Completion of Groundwater Delineation Study
Western Lagoon Area, NBIA Operable Unit 1

Soil Boring No.	Monitoring Well No.	Rationale	Comments
GP-20	None	Midway between MW-48 and existing clean well MW-38 to rule out potential flow in arcuate pattern from Western Lagoon Area to north and west.	Situated in active agricultural field; permanent well not practicable/sustainable.
GP-21	MW-48	Just north of CD#30, northwest of clean well MW-42; rule out north side of CD#30 as preferential flow path for impacted groundwater	Situated as close as practicable to CD#30 off edge of agricultural field.
GP-22	MW-46	Along Burr Oak Road west of GP-19 (vinyl chloride at 8.5 micrograms per liter) and between GP-19 and private well users.	Situated in Burr Oak Road right-of-way; flush-mounted well.
GP-23	MW-41	Along Burr Oak Road southwest west of GP-19 and between GP-19 and private well users.	Situated in Burr Oak Road right-of-way; flush-mounted well.
GP-24	MW-47	Northwest of GP-19 and part way between MW-46 and existing clean well MW-42 to confirm western limit of impacts.	Situated along irrigation piping route between active agricultural fields.

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FIGURES

FIGURE 1

- LEGEND**
- APPROXIMATE SITE BOUNDARY
 - VAP MONITORING WELL LOCATION
 - ◇ TEMPORARY VERTICAL AQUIFER PROFILE LOCATION
 - ◆ STAFF GAUGE
 - GEOPROBE LOCATION
 - ⊕ PRE-RI MONITORING WELL
 - ⊖ RI MONITORING WELL
 - ⊕ SOIL BORING LOCATION AND NUMBER
 - ⊕ PRE-DESIGN MW
 - MONITORING WELL - BRONSON PRECISION PRODUCT
 - ⊕ PIEZOMETER LOCATION AND NUMBER
 - ⊕ PRIVATE WELL LOCATION
 - PROPOSED VAP MONITORING WELL LOCATION AND NUMBER
 - ◇ PROPOSED VAP BORING LOCATION AND NUMBER

TOTAL CVOC's (ug/L)

- 0 - 1.99
- 2 - 100
- 100.01 - 1000
- 1000.01 - 5000
- ESTIMATED EXTENT OF CVOC IN GROUND WATER

**NORTH BRONSON
INDUSTRIAL AREA SITE
OPERABLE UNIT 1
BRONSON, MICHIGAN**

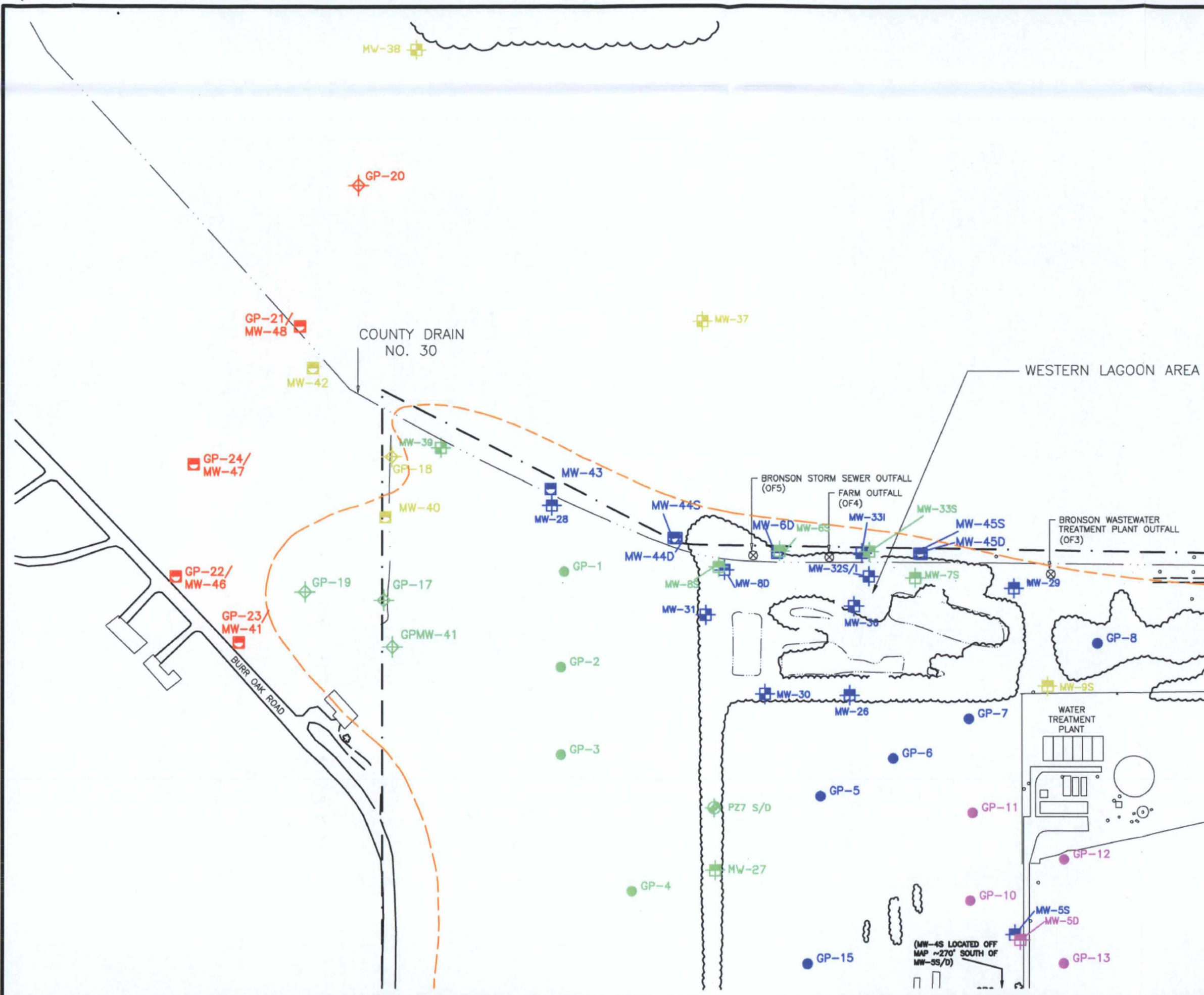
**PROPOSED VAP BORING
AND WELL LOCATIONS**

200 0 200
1"=200'

FILE NO. 12716.41485 - 012
JANUARY 2010

O'BRIEN & GERE

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(MW-4S LOCATED OFF
MAP ~270' SOUTH OF
MW-5S/D)

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FIGURE 2

LEGEND

APPROXIMATE SITE BOUNDARY



VAP MONITORING
WELL LOCATION



TEMPORARY VERTICAL
AQUIFER PROFILE LOCATION



STAFF GAUGE



GEOPROBE LOCATION



PRE-RI MONITORING WELL



RI MONITORING WELL



SOIL BORING LOCATION AND NUMBER



PRE-DESIGN MW



MONITORING WELL - BRONSON PRECISION
PRODUCT



PIEZOMETER LOCATION AND NUMBER



PRIVATE WELL LOCATION



PROPOSED VAP MONITORING WELL
LOCATION AND NUMBER



PROPOSED VAP BORING LOCATION
AND NUMBER

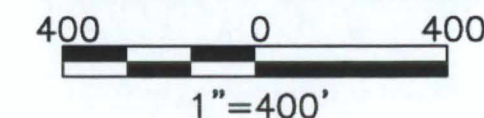


ESTIMATED EXTENT OF
CVOCs IN GROUND WATER

NOTE: PARCEL PROPERTY LINES ARE
APPROXIMATE AND BASED ON LEGAL
DESCRIPTIONS AND ON OCCUPANCY

NORTH BRONSON
INDUSTRIAL AREA SITE
OPERABLE UNIT 1
BRONSON, MICHIGAN

POTENTIALLY AFFECTED
TOWNSHIP PROPERTIES



FILE NO. 12716.41845.013
JANUARY 2010



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